
TWO NEW SPECIES OF *ELAPHOGLOSSUM* (ELAPHOGLOSSACEAE) FROM AMAZONAS, VENEZUELA

Elaphoglossum is one of the most complex and taxonomically difficult of all fern genera with over 600 species, three-fourths of which occur in the New World. Ninety-nine species were treated in Smith's *Pteridophytes of Venezuela* (1985). Twenty-nine of those species were described as new (Mickel, 1987), and I here describe two additional species.

Elaphoglossum longicaudatum Mickel, sp. nov. TYPE: Venezuela. Territorio Federal Amazonas: Dept. Río Negro, 1–2 km E and SE of San Carlos de Río Negro, 01°51'N, 67°03'W, 11 Nov. 1987, *Liesner & Carnevali* 22993 (holotype, NY; isotypes, MO, VEN). Figure 1A–C.

Ab *E. auricomum* rhizomatis paleis atrorubrobruneis laminae apice caudata divergens.

Rhizome compact, 3–6 mm diam.; rhizome scales linear-lanceolate, lustrous, heavily indurated, dark red-brown, 2–3 mm long, margin with sparse, weak, hairlike teeth, apex twisted; phyllopodia inconspicuous; fronds clumped, 12–32 cm long, 1.9–3.4 cm broad; stipe 1–3 cm long, $\frac{1}{30}$ – $\frac{1}{8}$ the sterile frond length, densely clothed with spreading orange scales 3–5 mm long; blade narrowly oblanceolate, papyraceous, apex caudate, base narrowly cuneate; veins indistinct, free, simple or 1-forked, ca. 1 mm apart, at 75° angle to costa; hydathodes lacking; blade scales orange, dense but not strongly overlapping, linear-lanceolate, 1–2 mm long, mostly skeletonized with long hairlike teeth, the teeth twice as long as the width of the scale body, some scales reduced nearly to stellate hairs; fertile fronds ca. $\frac{1}{2}$ the sterile frond length, 11 cm long; stipe 3 cm long; blade linear, 8 cm long, 0.7 cm broad, apex cuspidate, base cuneate, densely imbricate-scaly above, costa densely scaly below; intersporangial scales lacking.

Epiphytic in “transitional forest between bana and taller forest” (type specimen), 120 m elevation.

Additional specimen examined. VENEZUELA. AMAZONAS: 2 km E and SE of San Carlos de Río Negro, 01°51'N, 67°03'W, 12 Nov. 1987, *Liesner & Carnevali* 23003 (NY).

Elaphoglossum longicaudatum differs from *E.*

auricomum (Kunze) Moore in having dark (rather than pale) rhizome scales and caudate (rather than acuminate) blade apex.

Elaphoglossum parvulum Mickel, sp. nov. TYPE: Venezuela. Territorio Federal Amazonas: Dept. Atures, forested area along stream, on plateau N of unnamed (1,760 m) peak, 9 km NW of settlement of Yutajé, 4 km W of Río Coroco, W of Serranía de Yutajé, 05°41'N, 66°10'W, 7 Mar. 1987, *Liesner & Holst* 21772 (holotype, NY; isotypes, MO, VEN). Figure 1D–F.

Elaphoglossum horridulo similis laminae forma hydathodisque conspicuis sed pilis multis glandulosis differt.

Rhizome compact, ascending, ca. 2 mm diam.; rhizome scales linear, orange, entire, 2–3 mm long; phyllopodia lacking; fronds clumped, 2–5 cm long, 0.5–0.7 cm broad; stipe slender, $\frac{1}{4}$ – $\frac{3}{5}$ the sterile frond length, clothed with spreading, orange, hairlike, subulate scales ca. 2 mm long and with abundant 3–5-celled erect glandular hairs; blade linear-oblong, papyraceous, apex obtuse, base narrowly cuneate; veins obscure; hydathodes present and conspicuous; blade scales hairlike, subulate, denticulate, castaneous, 2–3 mm long, with abundant erect glandular hairs; fertile fronds ca. as long as the sterile fronds; stipe ca. $\frac{1}{5}$ the fertile frond length; blade smaller than on the sterile fronds, spatulate; intersporangial scales lacking.

Epiphytic, 1,050–1,300 m elevation.

Elaphoglossum parvulum resembles *E. horridulum* (Kaulf.) J. Smith in blade shape and conspicuous hydathodes but has many glandular hairs. It is probably more closely allied to *E. siliquoides* (Jenm.) C. Chr. but is much smaller than that species (fronds 2–5 cm long vs. 17–50 cm).

LITERATURE CITED

- MICKEL, J. T. 1985. *Elaphoglossum*. Pp. 78–107 in A. R. Smith (editor), *Pteridophytes of Venezuela*, an Annotated List. Published by author.
———. 1987. New species of *Elaphoglossum* (Elaphoglossaceae) from northern South America. *Brittonia* 39: 313–339.

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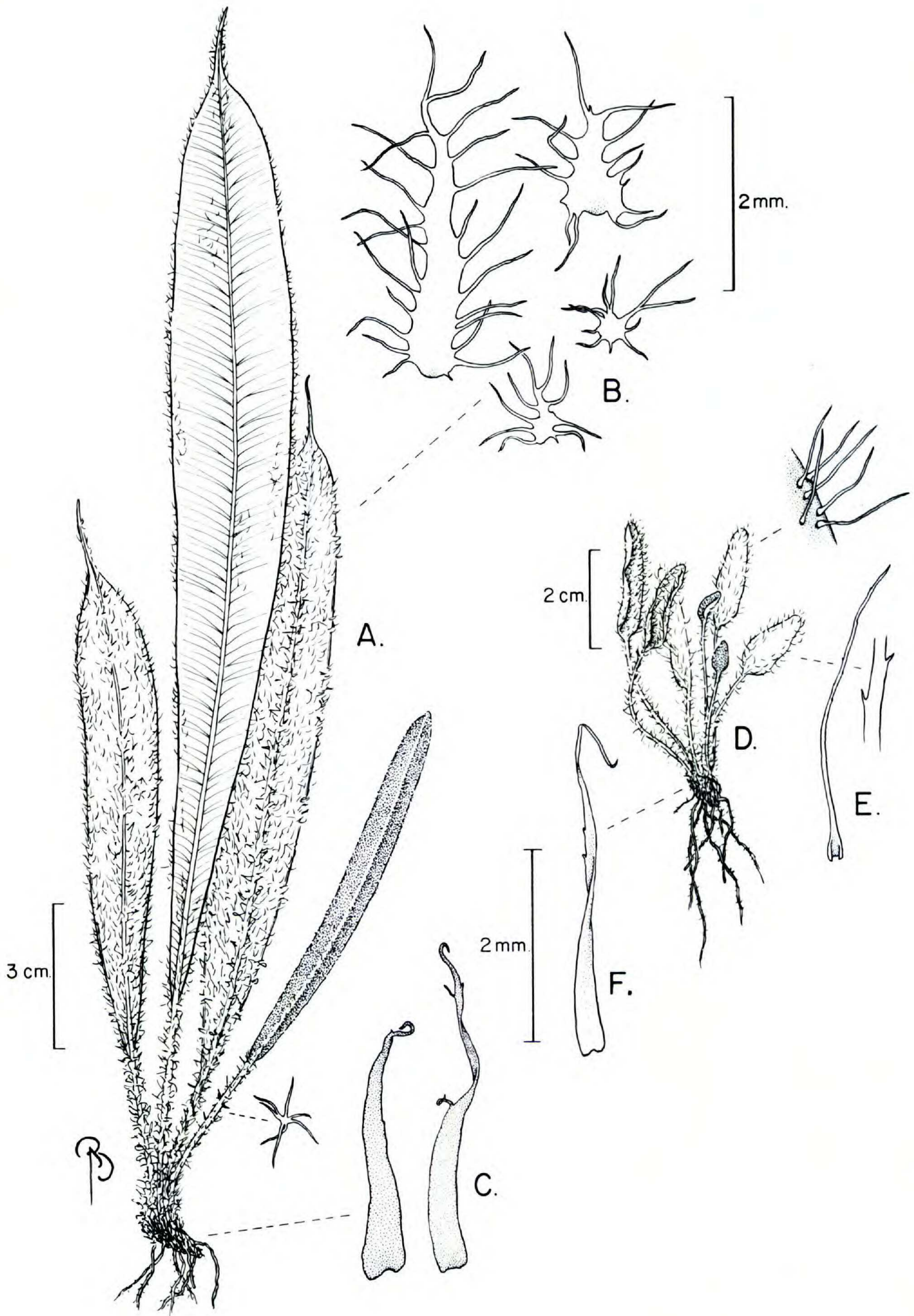


FIGURE 1. A-C. *Elaphoglossum longicaudatum*.—A. Habit.—B. Rhizome scales.—C. Blade scales. D-F. *Elaphoglossum parvulum*.—D. Habit.—E. Blade scales.—F. Rhizome scales.